ABSTRACT

A hot-rolled wire rod:

the wire rod being a hot-rolled wire rod 5.0 mm or more in diameter, containing in mass

C: 0.6 to 1.0%,

Si: 0.1 to 1.5%,

Mn: 0.3 to 1.0%,

P: 0.02% or less, and

S: 0.02% or less;

not less than 90% of the wire rod in area percentage being composed of a pearlite structure; and

the mechanical properties of the wire rod 4 m in length satisfying the following expressions (1) to (4),

(1) $TS^*-30 \leq$ Average value of tensile strength (TS_{AV} in MPa) $\leq TS^*+30$,

where, $TS^* = 400 \times \{[C]+([Mn]+[Si])/5\}+670$ and the elements in square brackets [ ] in the equality mean the contents of relevant elements in percentage,

(2) Standard deviation of tensile strength ($TS\sigma$) ≤ 30 MPa,

(3) Average value of reduction of area (RA_{AV}) $> 35\%$,

(4) Standard deviation of reduction of area ($RA\sigma$) $\leq 4\%$.

A hot-rolled wire rod according to the present invention is incomparably excellent in wire drawability and brakes less frequently than a conventional wire rod even

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when it is processed as hot-rolled with heat treatment such as patenting treatment omitted.